REMARKS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1-20 are currently pending. Claims 17-20 have been added by the present amendment. New Claims 17-20 are supported by the originally filed specification and do not add new matter.[1]

In the outstanding Office Action, Claim 16 was objected to as containing an informality; Claims 1-4, 15, and 16 were rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement; Claims 1-15 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,719,861 to Okanoue (hereinafter "the '861 patent") in view of U.S. Patent No. 6,304,556 to Haas (hereinafter "the '556 patent") and U.S. Patent No. 7,058,706 to Iyer et al. (hereinafter "the '706 patent"); and Claim 16 was rejected under 35 U.S.C. § 103(a) as being unpatentable over the '861 patent in view of the '706 patent.

CLAIM OBJECTION

Regarding the objection to Claim 16, it is respectfully submitted that the recited "storing" refers to the step of storing addresses of service nodes for providing a service to a mobile node. Accordingly, it is respectfully requested that the objection to Claim 16 be withdrawn.

REJECTION UNDER 35 U.S.C. § 112

The Office Action rejects Claims 1-4, 15, and 16 under 35 U.S.C. § 112, first paragraph, regarding the recited "new service node." In particular, the Office Action asserts

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[1] See, e.g., page 37, line 10 to page 39, line 17 of Applicants' specification.

that "[n]owhere in the specification is there an indication of whether the service node being

searched for is 'new' or a definition for would qualify a service node as being 'new.'"[2]

However, it is noted that MPEP § 2163.02 provides that:

> [w]henever the issue arises, the fundamental factual inquiry is
> whether the specification conveys with reasonable clarity to
> those skilled in the art that, as of the filing date sought,
> applicant was in possession of the invention as now claimed.
> See, e.g., Vas-Cath, Inc. v. Mahurkar, 935 F.2d 1555, 1563-64,
> 19 USPQ2d 1111, 1117 (Fed. Cir. 1991).
>
> The subject matter of the claim need not be described literally
> (i.e., using the same terms or in haec verba) in order for the
> disclosure to satisfy the description requirement.

For a non-limiting example, it is noted that the specification discloses "a newly

detected MAP" at least at page 36, line 30 to page 39, line 17. Thus, it is respectfully

submitted that the originally filed specification conveys with reasonable clarity to those

skilled in the art, as of the filing date sought, that Applicants were in possession of the

invention as now claimed. Accordingly, Applicants respectfully traverse the rejection of

Claims 1-4, 15, and 16 under 35 U.S.C. § 112, first paragraph.

REJECTION UNDER 35 U.S.C. § 103

Previously presented Claim 1 is directed to

> [a] node search method for searching for a new service
> node for providing a service to a mobile node, in a mobile
> communication system including a plurality of service nodes
> and the mobile node, each of the service nodes and the mobile
> node having a node storage unit configured to store addresses
> of service nodes, the node search method comprising:
>
> transmitting a node search packet to search for the new
> service node from a search node, which searches for the new
> service node, to a search packet reception node having an
> address stored in the node storage unit of the search node;
>
> transmitting a node notice request packet from the
> search packet reception node to a peripheral node having an

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[2] See Office Action dated November 26, 2008, page 2.

address stored in the node storage unit of the search packet reception node, *the address of the peripheral node not being stored in the node storage unit of the search node;*

returning a node notice packet from the search packet reception node to the search node, in response to the node search packet;

transmitting the node notice packet from the peripheral node to the search node, in response to the node notice request packet;

detecting the new service node based on the returned node notice packet from the peripheral node, by the search node;

updating the node storage unit of the search node based on the new service node detected by the search node; and

transmitting data for investigating node information from the search node to the detected new service node, the data for investigating node information including a request for a delay value and a number of hops in a packet transmission between the search node and the detected new service node.

Regarding the rejection of Claim 1 under 35 U.S.C. § 103(a), the Office Action asserts that the '861 patent discloses all the features of Claim 1, except "a mobile communication system or mobile nodes or transmitting data for investigating node information from the search node to the detected new service node, the data for investigating node information including a request for a delay value and a number of hops in a packet transmission between the search node and the detected new service node."[3]

The '861 patent is directed to an automatic route determination method. In particular, the '861 patent discusses a mesh-type network including nodes N1-N4 each having at least a routing protocol, wherein adjacent nodes N1 and N2 are connected through a simple element R1, the adjacent nodes N2 and N4 are connected through two simple elements R3 and R4, and the adjacent nodes N4 and N5 are connected through a simple element R5.[4] As discussed by the '861 patent, simple elements R1-R5 are network elements having no routing protocol,

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[3] See Office Action dated November 26, 2008, pages 5.
[4] See '861 patent, column 3, lines 40-46; also see Figure 1.

such as a repeater or a bridge.[5] Regarding the determination of a route between a source node

and a destination simple element, the '861 patent discusses that **the source node broadcasts**

a TARP request including the ID of the destination simple element and then waits for its

response. Each of the '861 nodes, receiving the address request signal, further broadcasts the

TARP request when neither managing nor normally communicating with the destination

simple element, or sends a TARP response when the node is managing or normally

communicating with the destination simple element. The '861 patent discusses that when the

response is received from another node, the source node determines the destination address of

the destination network element.[6]

The Office Action appears to cite the '861 source node for teaching the claimed

"search packet reception node"; the '861 search node N1 for teaching the claimed "search

node"; and the '861 destination node for teaching the claimed "peripheral node."[7] Further,

the Office Action cites the '861 node that receives an address request signal and further

broadcasts it when neither managing nor normally communicating with the destination

network element for teaching the claimed "transmitting a node notice request packet from the

search packet reception node to a peripheral node having an address stored in the node

storage unit of the search packet reception node." The Office Action cites the '861

determination of whether a destination ID included in a management message matches a

node's own routing table for teaching the claimed "address of the peripheral node not being

stored in the node storage unit of the search node." The Office Action cites the '861 response

from the destination node for teaching the claimed "transmitting the node notice packet from

the peripheral node to the search node, in response to the node notice request packet.

Moreover, the Office Action cites the '861 receipt of the response signal by the source node

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[5] See '861 patent, column 3, lines 46-48.
[6] Id. at Abstract; and column 4, lines 4-42.
[7] See Office Action dated November 26, 2008, page 16, lines 2, 3, and 6-11.

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for teaching the claimed "detecting the new service node based on the returned node notice packet from the peripheral node, by the search node."[8]

However, it is respectfully submitted that the '861 patent fails to disclose <u>transmitting the node notice packet from the peripheral node to the search node, in response to the node notice request packet</u>. Rather, as cited in the Office Action, the '861 patent simply discusses that when a node receives a TARP request packet from an adjacent node (step 801), a TARP signal processor 24 of the node checks whether a destination address included in a data field of the received TARP request packet is identical to the address of the node itself (step 802). **If the destination address is identical to its own address, the '861 TARP signal processor 24 of the node produces a TARP response packet and sends it back to the node which originated the TARP request packet (step 806).**[9] That is, the '861 patent discusses that an originating node (*i.e.*, the node that originated the TARP request packet) transmits a TARP request packet that includes an identifier of a destination node, and the destination node (*i.e.*, the node that corresponds to the destination address in the TARP request packet) transmits a TARP response packet in response to the TARP request.

The '861 patent does not disclose that the address of the destination node *is not stored in the originating node*. Thus, the '861 patent does not disclose transmitting the node notice packet from *the peripheral node (the address of the peripheral node not being stored in the node storage unit of the search node)* to the search node, *in response to the node notice request packet*, as defined in Claim 1.

Further, it is respectfully submitted that the '861 source node, search node N1, and destination node, do not correspond to the claimed "search packet reception node," "search node," and "peripheral node," respectively, as asserted in the Office Action. Rather, the '861 patent simply discusses that "[a] source node broadcasts an address request signal (TARP)

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[8] See Office Action dated November 26, 2008, pages 4 and 16.
[9] See '861 patent, column 6, lines 36-44.

including the ID of a destination simple element and then waits for its response signal."[10]

Further, the '861 address request signal may pass through a search node N1.[11] The '861

patent does not disclose "transmitting a node search packet to search for the new service node

from a search node **[the '861 search node N1]**, which searches for the new service node, to a

search packet reception node [**the '861 source node**] having an address stored in the node

storage unit of the search node **[the '861 search node N1]**." Further, the '861 patent does

not disclose transmitting a node notice request packet from the search packet reception node

[the '861 source node] to a peripheral node **[the '861 destination node]** having an address

stored in the node storage unit of the search packet reception node [**the '861 source node]**."

Moreover, assuming arguendo that the '861 source node corresponds to the claimed

"search node"; the '861 search node N1 corresponds to the claimed "search packet reception

node"; and the '861 destination node corresponds to the claimed "peripheral node," it is clear

that the destination node is known to the source node because the source node transmits a

TARP request packet including a destination ID. Thus, the '861 does not disclose "the new

service node," as defined in Claim 1.

Further, it is respectfully submitted that the '566 and '706 patents fail to remedy the

deficiencies of the '861 patent, as discussed above. The '566 patent is directed to routing and

mobility management protocols for ad-hoc networks. Further, the '706 patent is directed to a

method and apparatus for determining latency between multiple servers and a client.

However, it is respectfully submitted that the '566 and '706 patents, alone or in proper

combination, fail to disclose "transmitting the node notice packet," as defined in Claim 1.

Thus, no matter how the teachings of the '861, '566, and '706 patents are combined,

the combination does not teach or suggest "transmitting the node notice packet," as defined in

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[10] See '861 patent, Abstract.
[11] Id. at column 4, lines 4-13.

Claim 1. Accordingly, Applicants traverse the rejection of Claim 1 as being unpatentable over the '861, '566, and '706 patents.

Previously presented Claims 2, 15, and 16 recite limitations analogous to the limitations recited in Claim 1, although of differing class and/or scope. Accordingly, for reasons analogous to the reasons stated above for the patentability of Claim 1, Applicants respectfully traverse the rejections of Claims 2 and 15 (and all associated dependent claims) as being unpatentable over the '861, '566, and '706 patents, and the rejection of Claim 16 as being unpatentable over the '861 and '706 patents.

CONCLUSION

The present amendment also sets forth new Claims 17-20 for examination on the merits. No new matter has been added. It is respectfully submitted that these more detailed features are not disclosed or suggested by the applied references.

Thus, it is respectfully submitted that independent Claims 1, 2, 15, and 16 (and all associated dependent claims) patentably define over any proper combination of the '861, '566, and '706 patents.

Consequently, in view of the present amendment and in light of the above discussion, the outstanding grounds for rejection are believed to have been overcome. The application as amended herewith is believed to be in condition for formal allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.

Bradley D. Lytle
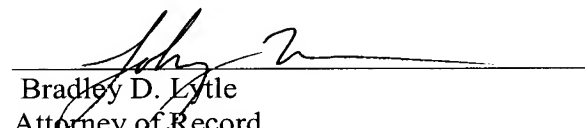Attorney of Record
Registration No. 40,073

Johnny Ma
Registration No. 59,976

Customer Number

22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 08/07)
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